

**Table 1: Modify Level 4 Text, Add Clarification & Change Release Attributes**

LEVEL_4	PARAGRA PH_ID	OBJEC T_ID	RELE ASE	TEXT	CLARIFICA TION	REQ_TYPE	REQ_STAT US	VERIFICAT ION_METH OD	VERIFICAT ION_STAT US	CCR
CC	F-DMS-01110	13192	FPB	The EOC shall provide the capability to send archived data to a designated SDPS.		functional	approved	demo	unverified	97-0716A
CT	F-DMS-01110				<u>FOS archived data will consist of the following data types:</u> <u>1. FOS Detailed Activity Schedule</u> <u>2. Predicted Ephemeris (FDF product)</u> <u>3. Predicted Orbit Events (FDF product)</u> <u>4. Predicted Ground Track (FDF product)</u> <u>5. Predicted Orbit Numbers and Start Times (FDF product)</u> <u>6. Generic FOS files</u>					
CC	F-FUI-07710	10391	B	The FOS shall provide a count down clock. The count down clock will first count down		functional	approved	test		

LEVEL_4	PARAGRA PH_ID	OBJEC T_ID	RELE ASE	TEXT	CLARIFICA TION	REQ_TYPE	REQ_STAT US	VERIFICAT ION_METH OD	VERIFICAT ION_STAT US	CCR
				to the acquisition of signal time (AOS). After AOS, it will count down to the loss of signal time (LOS).						
CT	F-FUI-07710								<u>unverified</u>	
CC	F-PAS-10410	13036	<del>B</del>	The EOC shall provide the capability to schedule S-band contingency communication contacts.	Requirement met through M&O Procedures.	operational   procedural	approved	demo	unverified	97-0518B
CT	F-PAS-10410		<u>FPB</u>							
CC	F-PAS-10415	13037	<del>B</del>	The EOC shall provide the capability to receive S-band contingency communication contact times.	Requirement met through M&O procedures.	operational   procedural	approved	demo	unverified	97-0518B
CT	F-PAS-10415		<u>FPB</u>							
CC	F-RMS-03010	4972	B	The EOC shall monitor EOC hardware components for changes in status.	The status monitored tells the EOC that the component is active or inactive. <del>The monitor function will be provided by MSS tools that will be employed by the FOS</del>	functional		demo		

LEVEL_4	PARAGRA PH_ID	OBJEC T_ID	RELE ASE	TEXT	CLARIFICA TION	REQ_TYPE	REQ_STAT US	VERIFICAT ION_METH OD	VERIFICAT ION_STAT US	CCR
					<del>software.</del> Statuses will be reported to the DMS subsystem in the form of management events.					
CT	F-RMS-03010				The status monitored tells the EOC that the component is active or inactive. Statuses will be reported to the DMS subsystem in the form of management events.		<u>approved</u>		<u>unverified</u>	
CC	F-RMS-03030	4973	B	The EOC shall monitor software components for change in status.	The status of the software tasks monitored could be active; <del>inactive, or suspended.</del> <del>The monitor function will be provided by MSS tools that will be employed by the FOS software.</del> Statuses will be reported to the DMS subsystem in the form of management events.	functional		test		
CT	F-RMS-				The status of		<u>approved</u>		<u>unverified</u>	

LEVEL_4	PARAGRA PH_ID	OBJEC T_ID	RELE ASE	TEXT	CLARIFICA TION	REQ_TYPE	REQ_STAT US	VERIFICAT ION_METH OD	VERIFICAT ION_STAT US	CCR
	03030				the software tasks monitored could be active <u>or</u> inactive. Statuses will be reported to the DMS subsystem in the form of management events.					

Table 2: Modify RBR Release Attribute

REQ_BY_REL	PARAGRAPH_ID	OBJECT_ID	RELEASE	TEXT	CLARIFICATION	REQ_INTEPRETATION	REQ_CATEGORY	SEGMENT_ALLOCATION	REQ_TYPE	S_VERIFICATION_METHOD	S_VERIFICATION_STATUS	A_VERIFICATION_METHOD	A_VERIFICATION_STATUS	CCR
CC	EOC-5020#B	9549		The EOC shall receive and process spacecraft telemetry data during spacecraft launch.			mission critical	FOS	functional	test	un-verified	test	un-verified	97-1089A
CT	EOC-5020#B		<u>FPB</u>											
EOT														

Table 3: Add New L3 F&PRS

L3_FPRS	PARAGRAPH_ID	OBJECT_ID	REQ_TITLE	CCR	TEXT
ADD	<u>FOS-1170</u>		<u>Spacecraft Commands Issuance</u>		<u>The FOS shall allow individual instrument operations teams to use a specific set of spacecraft commands that are pre-defined by the flight operations team in their instrument activities and procedures.</u>
EOT					

Table 4: Add New RBR

REQ_BY_REL	PARAGRAPH_ID	OBJECT_ID	RELEASE	TEXT	CLARIFICATION	REQ_INTERPRETATION	REQ_CATEGORY	SEGMENT_ALLOCATION	REQ_TYPE	S_VERIFICATION_METHOD	S_VERIFICATION_STATUS	A_VERIFICATION_METHOD	A_VERIFICATION_STATUS	CCR
ADD	<u>FOS-1170#B</u>		<u>FPB</u>	<u>The FOS shall allow individual instrument operations teams to use a specific set of spacecraft commands that are pre-defined by the flight operations team in their instrument activities and procedures.</u>			<u>mission essential</u>	<u>FOS</u>	<u>functional</u>	<u>demo</u>	<u>un-verified</u>	<u>demo</u>	<u>un-verified</u>	
EOT														

Table 5: Add New Level 4s

LEVEL_4	PARAGRAPH_ID	OBJECT_ID	RELEASE	TEXT	CLARIFICATION	REQ_TYPE	REQ_STATUS	VERIFICATION_METHOD	VERIFICATION_STATUS	CCR
ADD	<u>F-CMS-00770</u>		<u>FPB</u>	<u>The FOS shall provide the capability for an instrument team to have the option of including a pre-defined set of spacecraft command mnemonics in an instrument command procedure definition.</u>	<u>The allowed set of spacecraft commands for each instrument is defined in an internal FOS configuration table that is editable by the FOT.</u>	<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	
ADD	<u>F-DMS-00190</u>		<u>FPB</u>	<u>The FOS shall provide the flight</u>	<u>If the FOT does not pre-define a set of</u>	<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	

LEVEL_4	PARAGRAPH_ID	OBJECT_ID	RELEASE	TEXT	CLARIFICATION	REQ_TYPE	REQ_STATUS	VERIFICATION_METHOD	VERIFICATION_STATUS	CCR
				<u>operations team the capability to identify a set of pre-defined spacecraft command mnemonics which may be included in instrument activity definitions, instrument command procedure definitions, and instrument relative time command sequences.</u>	<u>spacecraft commands, then the instrument team will not be permitted to include any spacecraft commands in their activity definitions, command procedure definitions, and instrument relative time command sequences.</u>					
ADD	<u>F-DMS-01465</u>		<u>FPB</u>	<u>The EOC shall provide the capability for the EOC operator to configure a process to periodically purge FDF data from the local EOC database.</u>		<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	
ADD	<u>F-FOS-00341</u>		<u>FPB</u>	<u>The EOC shall maintain two sets of NCC addresses. One set will address the NCCDS operational system and the other will address the NCCDS test system.</u>	<u>Reference the Interface Control Document between the NCCDS and GSFC MOCs (530-ICD-NCCDS/MOC)</u>	<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	
ADD	<u>F-FOS-00342</u>		<u>FPB</u>	<u>The EOC will communicate with the NCC in such a way that the EOC</u>	<u>Reference the Interface Control Document between the</u>	<u>interface</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	

LEVEL_4	PARAGRAPH_ID	OBJECT_ID	RELEASE	TEXT	CLARIFICATION	REQ_TYPE	REQ_STATUS	VERIFICATION_METHOD	VERIFICATION_STATUS	CCR
				<u>can detect and reestablish connection to the NCCDS when the connection is lost.</u>	<u>NCCDS and GSFC MOCs (530-ICD-NCCDS/MOC)</u>					
ADD	<u>F-FOS-00700</u>		<u>FPB</u>	<u>The FOS shall report if CPU utilization is in excess of a configurable threshold at the occurrence of a configurable polling interval.</u>	<u>An event message will be generated when CPU utilization is in excess of 95 %.</u>	<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	
ADD	<u>F-FOS-00705</u>		<u>FPB</u>	<u>The FOS shall provide the capability to report file system resources usage including:</u> <u>a. Local disk partition inode availability,</u> <u>b. Local disk partition space availability,</u> <u>c. Number of bad NFS calls exceeds configurable thresholds at the occurrence of a configurable polling interval.</u>	<u>An event message will be generated when:</u> <u>a. Fewer than 150 inodes are available on the local disk partitions.</u> <u>b. Less than 15Mb of space is available on the local disk partition.</u> <u>c. The number of bad NFS calls increases or decreases 10% since the last poll.</u>	<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	
ADD	<u>F-FOS-00715</u>		<u>FPB</u>	<u>The FOS shall provide the capacity to report System resources usage, including:</u>	<u>An event message will be generated when:</u> <u>a. The Host goes up or down</u>	<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	



LEVEL_4	PARAGRAPH_ID	OBJECT_ID	RELEASE	TEXT	CLARIFICATION	REQ_TYPE	REQ_STATUS	VERIFICATION_METHOD	VERIFICATION_STATUS	CCR
				<u>a. Swap Space Availability</u> <u>b. The number of Pageouts</u> <u>c. The number of Zombie processes on the host exceeds configurable thresholds at the occurrence of a configurable polling interval.</u>	<u>b. The amount of Swap Space available falls below 20 Mb.</u> <u>c. When the number of Pageouts increases beyond 80%</u> <u>d. When greater than 10 Zombie Processes are running on the host.</u>					
ADD	<u>F-FOS-00720</u>		<u>FPB</u>	<u>The FOS shall provide the capacity to report if specifiable daemons go down and come up.</u>	<u>An event message will be generated when:</u> <u>a. The Sybase daemon goes up or down.</u> <u>b. The Tivoli daemon goes up or down.</u>	<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	
ADD	<u>F-FOS-00725</u>		<u>FPB</u>	<u>The FOS shall report when a printer queue becomes unavailable and when it again becomes available.</u>	<u>An event message will be generated.</u>	<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	
ADD	<u>F-FOS-00730</u>		<u>FPB</u>	<u>The FOS shall report when host machines go down and come up.</u>	<u>An event message will be generated.</u>	<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	
ADD	<u>F-FOS-00735</u>		<u>FPB</u>	<u>The FOS shall report if the space available for the Tivoli (COTS) database is less than a</u>	<u>An event message will be generated when the local Tivoli database has less than 10 Mb available.</u>	<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	

LEVEL_4	PARAGRAPH_ID	OBJECT_ID	RELEASE	TEXT	CLARIFICATION	REQ_TYPE	REQ_STATUS	VERIFICATION_METHOD	VERIFICATION_STATUS	CCR
				<u>configurable value.</u>						
ADD	<u>F-FUI-00005</u>		<u>FPB</u>	<p><u>The EOC shall generate the following Wall clock time displays:</u></p> <p><u>a. UTC</u></p> <p><u>b. Mission label</u></p> <p><u>c. Mission specific AOS</u></p> <p><u>d. Mission specific LOS</u></p>	<p><u>a. (DOY/HH:MM:SS)</u></p> <p><u>b. AM1, PM1, CHEM2 etc</u></p> <p><u>c. HH:MM:SS</u>  <u>Time left until next scheduled TDRSS or ground station contact driven from the contact scheduler. The AOS Display counts down to Contact start then holds at 00:00:00 until end of contact. For a contact start of 153/02:00:00 this attribute would display 01:00:00 at 153/01:00:00.</u></p> <p><u>d. HH:MM:SS</u>  <u>Time left in current contact. Prior to contact start, duration of next contact is displayed. When contact starts display counts down to zero. At 00:00:00 both AOS and LOS reset to the values for the next contact. Prior to a</u></p>	<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	

LEVEL_4	PARAGRAPH_ID	OBJECT_ID	RELEASE	TEXT	CLARIFICATION	REQ_TYPE	REQ_STATUS	VERIFICATION_METHOD	VERIFICATION_STATUS	CCR
					<u>contact start for a 20 minute contact this attribute will display 00:20:00.</u>					
ADD	<u>F-FUI-00010</u>		<u>FPB</u>	<u>The EOC shall provide the user with the capability to change the font, size, and color of each individual mission's wall clock display.</u>		<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	
ADD	<u>F-FUI-00015</u>		<u>FPB</u>	<u>The EOC shall provide the user the ability to add, delete, and further edit wall clock display times.</u>		<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	
ADD	<u>F-FUI-00020</u>		<u>FPB</u>	<u>The EOC shall provide the user the ability to switch to and from other FOS display pages and the wall clock within 5 seconds using software commands.</u>		<u>performance</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	
ADD	<u>F-FUI-02887</u>		<u>FPB</u>	<u>The FOS shall provide the capability for an instrument team to have the option of including a pre-defined set of spacecraft command mnemonics in an instrument</u>	<u>The allowed set of spacecraft commands for each instrument are defined in an internal FOS configuration table that is editable by the FOT.</u>	<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	

LEVEL_4	PARAGRAPH_ID	OBJECT_ID	RELEASE	TEXT	CLARIFICATION	REQ_TYPE	REQ_STATUS	VERIFICATION_METHOD	VERIFICATION_STATUS	CCR
				<u>command procedure definition.</u>						
ADD	<u>F-FUI-02897</u>		<u>FPB</u>	<u>The FOS shall provide the capability to use parameters that are returned from a sub-procedure.</u>	<u>Returned parameter types may be characters or numeric values.</u>	<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	
ADD	<u>F-FUI-02898</u>		<u>FPB</u>	<u>The FOS shall provide the capability to assign line numbers to lines within a procedure.</u>	<u>The line numbers are assigned at the time of procedure definition.</u>	<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	
ADD	<u>F-FUI-05350</u>		<u>FPB</u>	<u>The FOS shall provide the capability to display line numbers for each line in the ground script.</u>		<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	
ADD	<u>F-FUI-05355</u>		<u>FPB</u>	<u>The FOS shall provide the capability to display procedure line numbers for procedures expanded in the ground script.</u>	<u>The ground script should display (at a minimum) the line number of the procedure, as defined in the procedure builder.</u>	<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	
ADD	<u>F-FUI-06475</u>		<u>FPB</u>	<u>The FOS shall provide the capability for the operator to direct ground script execution to jump to a specified point in the currently executing ground script.</u>	<u>The operator can select the line of the ground script to jump to. Since procedures are expanded in the ground script, the user can jump to a line in the middle of a procedure, if desired.</u>	<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	
ADD	<u>F-PAS-00230</u>		<u>FPB</u>	<u>The FOS shall</u>	<u>The allowed set</u>	<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	

LEVEL_4	PARAGRAPH_ID	OBJECT_ID	RELEASE	TEXT	CLARIFICATION	REQ_TYPE	REQ_STATUS	VERIFICATION_METHOD	VERIFICATION_STATUS	CCR
				<u>provide the capability for an instrument team to have the option of including a pre-defined set of spacecraft command mnemonics in an instrument activity definition.</u>	<u>of spacecraft commands for each instrument are defined in an internal FOS configuration table that is editable by the FOT.</u>					
ADD	<u>F-PAS-10402</u>		<u>FPB</u>	<u>The EOC shall provide the capability to translate FDD-provided TDRS Ids used in planning products into a format acceptable for insertion into NCC schedule requests.</u>	<u>FDF provides the TDRS Ids in antenna view planning aids. FOS maintains a mapping of FDD TDRS Ids to NCC-approved TDRS Ids. The NCC-approved format for TDRS-IDs is changeable, so the FOS TDRS ID mappings must be editable by the EOC scheduler.</u>	<u>functional</u>	<u>approved</u>	<u>demo</u>	<u>unverified</u>	
EOT										

Table 6: Add F&PRS to RBR Link

RELEASE_TO_L4	PARAGRAPH_ID	PARAGRAPH_ID
LINK	<u>FOS-1170</u>	<u>FOS-1170#B</u>
EOT		

**Table 7: Add RBR to L4 Link**

RELEASE _TO_L4	PARAGRAPH _ID	PARAGRAPH _ID
LINK	<u>EOSD0760#B</u>	<u>F-FOS-00341</u>
LINK	<u>EOC-5030#B</u>	<u>F-FOS-00341</u>
LINK	<u>EOSD0760#B</u>	<u>F-FOS-00342</u>
LINK	<u>EOC-5030#B</u>	<u>F-FOS-00342</u>
LINK	<u>EOC-9020#B</u>	<u>F-FUI-05350</u>
LINK	<u>EOC-9010#B</u>	<u>F-FUI-06475</u>
LINK	<u>EOC-9040#B</u>	<u>F-FUI-02897</u>
LINK	<u>ICC-6540#B</u>	<u>F-FUI-02897</u>
LINK	<u>EOC-4018#B</u>	<u>F-PAS-00230</u>
LINK	<u>EOC-2010#B</u>	<u>F-PAS-10402</u>
LINK	<u>EOC-2030#B</u>	<u>F-PAS-10402</u>
LINK	<u>EOC-2400#B</u>	<u>F-PAS-10402</u>
LINK	<u>EOC-2405#B</u>	<u>F-PAS-10402</u>
LINK	<u>EOC-2410#B</u>	<u>F-PAS-10402</u>
LINK	<u>EOC-2520#B</u>	<u>F-PAS-10402</u>
LINK	<u>EOC-8150#B</u>	<u>F-FOS-00700</u>
LINK	<u>EOC-8150#B</u>	<u>F-FOS-00705</u>
LINK	<u>EOC-8150#B</u>	<u>F-FOS-00715</u>
LINK	<u>EOC-8150#B</u>	<u>F-FOS-00720</u>
LINK	<u>EOC-8150#B</u>	<u>F-FOS-00725</u>
LINK	<u>EOC-8150#B</u>	<u>F-FOS-00730</u>
LINK	<u>EOC-8150#B</u>	<u>F-FOS-00735</u>
LINK	<u>EOC-9020#B</u>	<u>F-FUI-00005</u>
LINK	<u>EOC-9020#B</u>	<u>F-FUI-00010</u>
LINK	<u>EOC-9020#B</u>	<u>F-FUI-00015</u>
LINK	<u>EOC-9020#B</u>	<u>F-FUI-00020</u>
LINK	<u>EOC-9020#B</u>	<u>F-FUI-05355</u>
LINK	<u>EOC-9080#B</u>	<u>F-FUI-02898</u>
LINK	<u>EOC-2010#B</u>	<u>F-DMS-01465</u>
LINK	<u>EOSD1505#B</u>	<u>F-PAS-10402</u>
LINK	<u>EOSD1520#B</u>	<u>F-PAS-10402</u>
LINK	<u>FOS-1170#B</u>	<u>F-PAS-00230</u>
LINK	<u>FOS-0040#B</u>	<u>F-FUI-00005</u>

RELEASE_TO_L4	PARAGRAPH_ID	PARAGRAPH_ID
LINK	<u>FOS-0040#B</u>	<u>F-FUI-00010</u>
LINK	<u>FOS-0040#B</u>	<u>F-FUI-00015</u>
LINK	<u>FOS-0040#B</u>	<u>F-FUI-00020</u>
LINK	<u>FOS-1170#B</u>	<u>F-FUI-02887</u>
LINK	<u>FOS-1170#B</u>	<u>F-CMS-00770</u>
LINK	<u>FOS-1170#B</u>	<u>F-DMS-00190</u>
LINK	<u>FOS-1170#B</u>	<u>F-FUI-02887</u>
LINK	<u>FOS-1170#B</u>	<u>F-CMS-00770</u>
LINK	<u>FOS-1170#B</u>	<u>F-DMS-00190</u>
LINK	<u>ICC-6080#B</u>	<u>F-FOS-00700</u>
LINK	<u>ICC-6080#B</u>	<u>F-FOS-00705</u>
LINK	<u>ICC-6080#B</u>	<u>F-FOS-00715</u>
LINK	<u>ICC-6080#B</u>	<u>F-FOS-00720</u>
LINK	<u>ICC-6080#B</u>	<u>F-FOS-00725</u>
LINK	<u>ICC-6080#B</u>	<u>F-FOS-00730</u>
LINK	<u>ICC-6080#B</u>	<u>F-FOS-00735</u>
LINK	<u>ICC-6520#B</u>	<u>F-FUI-05350</u>
LINK	<u>ICC-6520#B</u>	<u>F-FUI-05355</u>
LINK	<u>ICC-6580#B</u>	<u>F-FUI-02898</u>
LINK	<u>NI-0370#B</u>	<u>F-PAS-10402</u>
LINK	<u>NI-0340#B</u>	<u>F-PAS-10402</u>
LINK	<u>NI-0350#B</u>	<u>F-PAS-10402</u>
LINK	<u>NI-0365#B</u>	<u>F-PAS-10402</u>
EOT		

Table 8: Delete Level 4s

LEVEL_4	PARAGRAPH_ID	OBJECT_ID	RELEASE	TEXT	CLARIFICATION	REQ_TYPE	REQ_STATUS	VERIFICATION_METHOD	VERIFICATION_STATUS	CCR
DEL	<del>F-FUI-07710</del>	<del>10391</del>	<del>B</del>	The FOS shall provide a count down clock. The count down clock will first count		<del>functional</del>	<del>approved</del>	<del>test</del>	<del>un-verified</del>	

[illegible]